

Claims

1. A gene which is selected from a polynucleotide represented by SEQ ID NO. 1 or a polynucleotide encoding a  $\gamma$ -butyrobetaine hydroxylase represented by SEQ ID NO. 2.

5           2. A recombinant vector comprising the gene of claim 1.

3. The recombinant vector according to claim 2, which has accession number KCCM-10557.

10           4. A transformant transformed with a recombinant vector comprising the gene of claim 1.

5. The transformant according to claim 4, which is *Escherichia coli*.

15           6. A  $\gamma$ -butyrobetaine hydroxylase having an amino acid sequence that is selected from an amino acid sequence encoded by a polynucleotide represented by SEQ ID NO. 1 or an amino acid sequence represented by SEQ ID NO. 2.

7. A method of preparing L-carnitine, which comprises hydroxylating  $\gamma$ -butyrobetaine using the  $\gamma$ -butyrobetaine hydroxylase of claim 6.